Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Previously Presented) A method for minimizing total cost of interaction among components of a computer program, each of said components being characterized by at least one data representation property, said method comprising the steps of:

a) carrying out at least a partial run of said program;

b) monitoring said at least partial run of the program to measure an amount of interaction between each pair of components;

c) determining a cost of interaction between each pair of interacting components;

d) determining a choice of data representation properties which minimizes total cost of said at least partial run;

e) assigning said choice of said data representation properties to said components for a subsequent at least partial run of said program.

2.   (Previously Presented) A method as set forth in Claim 1, said data representation property comprising a choice of string representation of a component, said amount of interaction measured in step (b) comprising a frequency of interaction between each pair of interacting components; said cost of interaction comprising a function of said frequency and a cost of converting any differing string representations of said pair to a common string representation.

3.   (Previously Presented) A method as set forth in Claim 2, wherein at least one string representation is selected from ASCII, UNICODE, and EBCDIC.

4.   (Previously Presented) A method as set forth in Claim 1, said data representation property comprising a choice of data structure of a component, said amount of interaction

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measured in step (b) comprising a frequency of interaction between each pair of interacting components; said cost of interaction comprising a function of said frequency and a cost of converting any differing choices of data structures of said pair to a common choice of data structure.

5.   (Previously Presented) A method as set forth in Claim 3, wherein at least one data structure is selected from hash, tree, and compressed data structures.

6.   (Previously Presented) A method as set forth in Claim 1, wherein the step (d) of determining the choice is carried out by building a graph with nodes representing program components and edges that join adjacent nodes representing interaction therebetween, each edge being characterized by a cost of each interaction, then using a graph cutting technique to find a minimum cut of the graph.

7.   (Currently Amended) A computer readable medium including computer instructions for carrying out a method for minimizing total cost of interaction among components of a computer program running on a computer system, ~~said method comprising the steps of~~ <u>said medium comprising instructions for</u>:

      a) carrying out at least a partial run of said program;

      b) monitoring said at least partial run of the program to measure an amount of interaction between each pair of components;

      c) determining a cost of interaction between each pair of interacting components;

      d) determining a choice of data representation properties which minimizes total cost of said at least partial run;

      e) assigning said choice of said data representation properties to said components for a subsequent at least partial run of said program.

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8.   (Currently Amended) A computer readable medium as set forth in Claim 7, said data representation property comprising a choice of string representation of a component, said amount of interaction measured in ~~step~~ instruction (b) comprising a frequency of interaction between each pair of interacting components; said cost of interaction comprising a function of said frequency and a cost of converting any differing string representations of said pair to a common string representation.

9.   (Previously Presented) A computer readable medium as set forth in Claim 8, wherein at least one string representation is selected from ASCII, UNICODE, and EBCDIC.

10.   (Previously Presented) A computer readable medium as set forth in Claim 7, said data representation property comprising a choice of data structure of a component, said amount of interaction measured in step (b) comprising a frequency of interaction between each pair of interacting components; said cost of interaction comprising a function of said frequency and a cost of converting any differing choices of data structures of said pair to a common choice of data structure.

11.   (Previously Presented) A computer readable medium as set forth in Claim 10, wherein at least one data structure is selected from hash, tree, and compressed data structures.

12.   (Currently Amended) A computer readable medium as set forth in Claim 7 wherein the ~~step~~ instruction (d) of determining the choice is carried out by building a graph with nodes representing program components and edges that join adjacent nodes representing interaction therebetween, each edge being characterized by a cost of each interaction, then using a graph cutting technique to find a minimum cut of the graph.